



Aircraft Tools

AIRCRAFT TOOLS, INC.

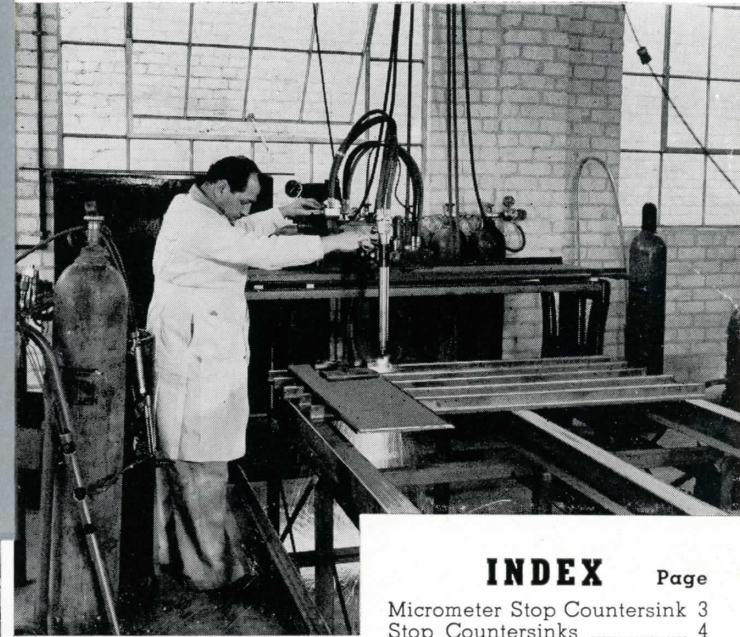
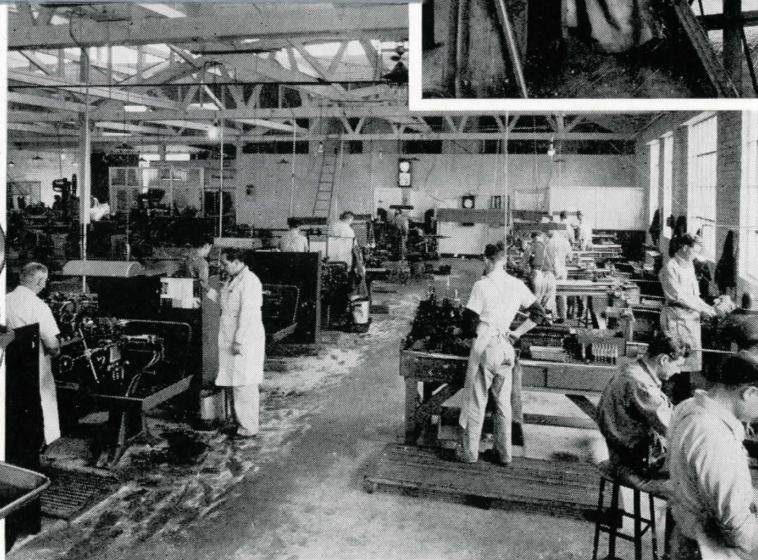
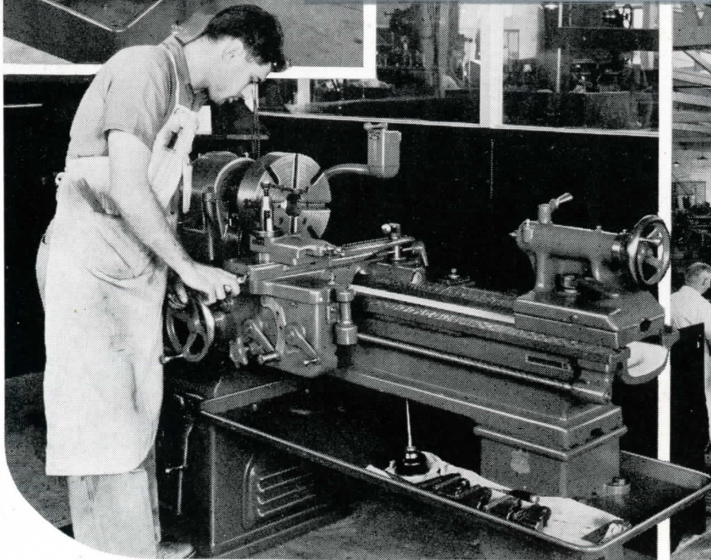
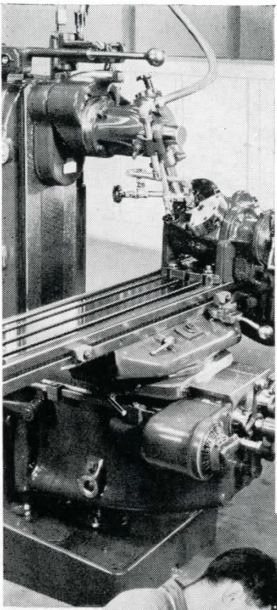
750 E. Gage Avenue

• Los Angeles, Calif.

"A WORKMAN IS NO BETTER THAN HIS TOOLS"

There are exceptions to the old adage, but fundamentally it is true. Precision manufacturing demands precision tools. Rapid production requires hand tools that are easy to use, fast in operation, rugged in construction, economical and easy to maintain, low in first cost, and above all else, capable of doing exacting work. These are the qualifications of "Aerocraft" tools . . . proven by practical application and constant use in major aircraft factories. No tool is built or sold by Aircraft Tools, Inc. that has not been thoroughly tested, both in the factory and under the most stringent working conditions. From a study of the requirements of aircraft builders, uniform tools have been designed that give constantly increased production efficiency, with lower costs. For a dependable source of tools that are so essential to precision hand-craftsmanship in aircraft construction, rely on

AIRCRAFT TOOLS, INC.



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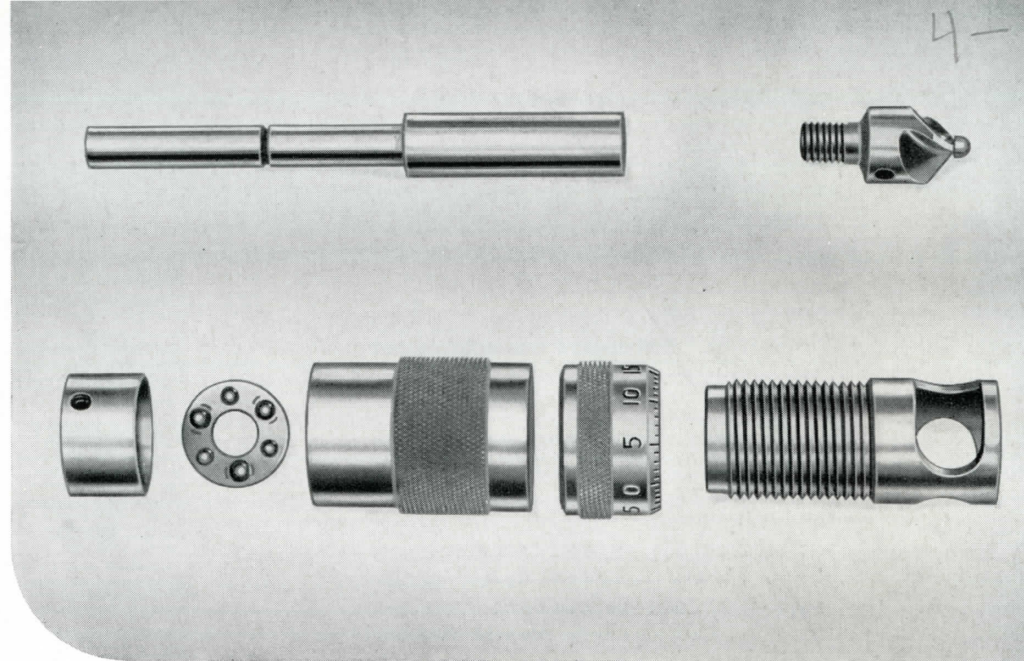
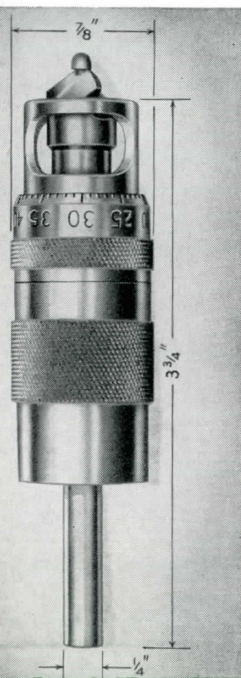
MICROMETER STOP COUNTERSINK

A new and improved micrometer stop countersink designed and constructed to give extreme accuracy.

Depths of .0005 can be held under production conditions.

This tool is full ball bearing with depths set by obtaining a micrometer reading and locking the barrel into position. Cutters are of the three spiral flute type with highly polished flutes.

Available in two cutter sizes 7/16" and 7/8". Cutters and pilots are obtainable in various degrees and pilots sizes as shown in charts.



Specify cutter angle and pilot size when ordering.

CUTTERS FOR 7/16" DIA.

Part No.	A	Code Word
AT-1197-1	78°	TEA
AT-1197-2	82°	TEC
AT-1197-3	90°	TED
AT-1197-4	100°	TEE
AT-1197-5	110°	TEH
AT-1197-6	115°	TEK

CUTTERS FOR 7/8" DIA.

Degree	7/16 Code	7/8 Code
78°	TEA	TAB
82°	TEC	TAC
90°	TED	TAD
100°	TEE	TAM
110°	TEH	TAR
115°	TEK	TAS

PILOTS FOR 7/8" CUTTERS

Part No.	Size	Code Word
AT-1211-1	3/16"	NOA
AT-1211-2	1/4"	NOB
AT-1211-3	5/16"	NOD
AT-1211-4	3/8"	NOE
AT-1211-5	1/2"	NOG

PILOTS FOR 7/16" CUTTERS

Part No.	A Dia.	Code Word
AT-1195-4	.19	NAE
AT-1195-7	3/32"	NAJ
AT-1195-8	1/8"	NAN
AT-1195-9	5/32"	NAR
AT-1195-10	3/16"	NAT

EXAMPLE: 90° Micrometer stop countersink with 1/4 pilot: TAD-NOB



Stop Countersinks

Aerocraft Adjustable Countersinks are hand adjusted for fast and easy cutting, with the desired adjustment securely locked. Cutters are fabricated from high speed tool steel and have highly polished flutes, accurately ground to correct cutting angles. Cutter shafts run in bronze bearings, assuring smooth, cool operation and long life. Proven by thousands of hours in production use.

AEROCRAFT COUNTERSINK CUTTERS

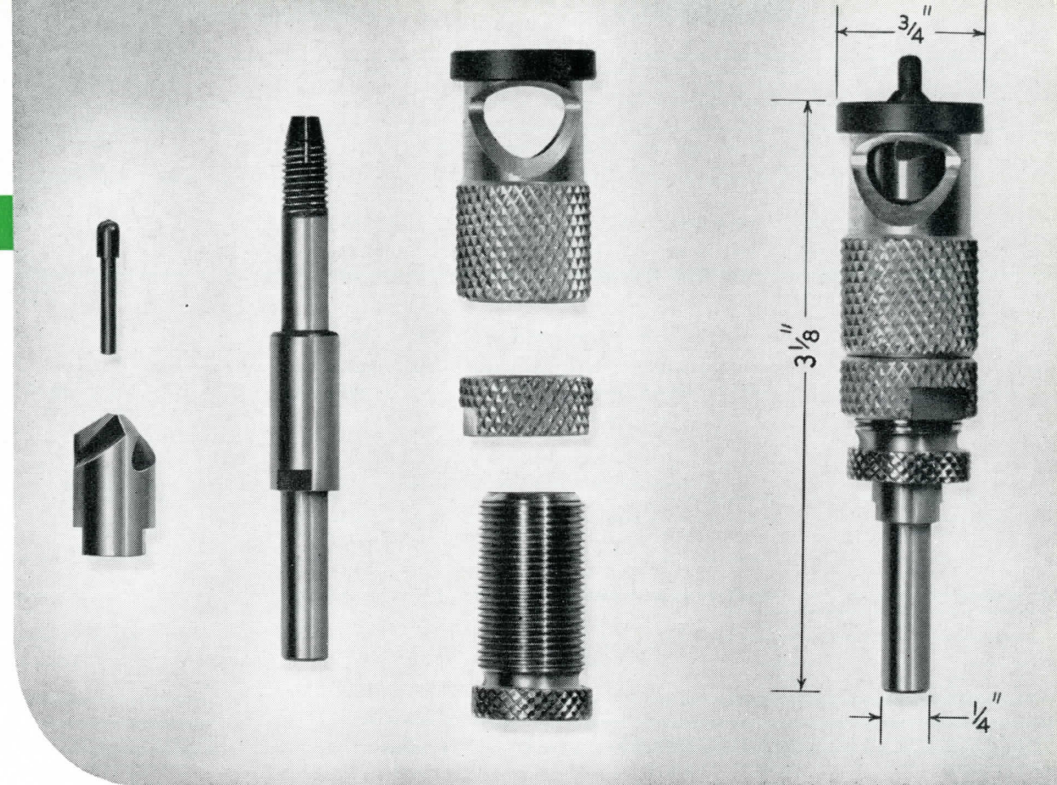
Degree	Code Word
78°	ACA
82°	ACB
90°	ACC
100°	ACD
115°	ACE

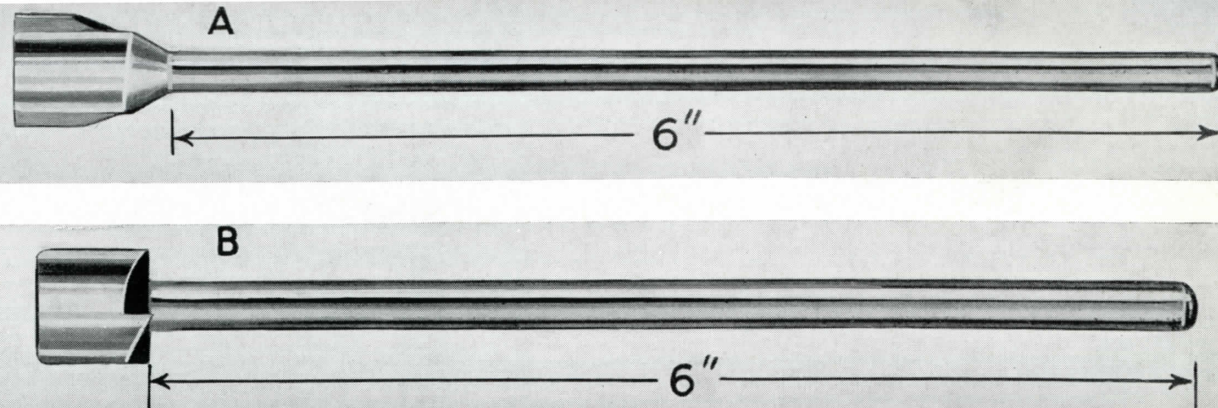
EXAMPLE:
82° Stop Countersink
with 5/32" Pilot:
ACB-ACY

AEROCRAFT COUNTERSINK PILOTS

Size	Code Word
3/32"	ACW
1/8 "	ACX
5/32"	ACY
3/16"	ACZ

Specify cutter angle and pilot size when ordering.





BACK COUNTERSINKS & BACK SPOTFACERS

Single end, Bayonet type, made of high speed steel, with highly polished flutes hardened and accurately ground for correct cutting angle and proper clearance. Pilots are made of carbon tool steel.

Back Countersinks and Back Spotfacers are stocked **ONLY** with the sizes of pilots shown for each in the accompanying table.

Back Countersinks are furnished in either 82° or 100° included angle.

Specify degree required when ordering.

Pilots are furnished in six inch lengths

BACK COUNTERSINKS		BACK SPOTFACERS		Pilots	Code
Diam.	Code	Diam.	Code		
1/4"	COA	1/4"	BEA	3/32"	PIA
				1/8"	PIE
5/16"	COB	5/16"	BEE	1/8"	PIE
				5/32"	PIR
3/8"	COC	3/8"	BEC	3/16"	PIX
				5/32"	PIR
7/16"	COE	7/16"	BED	3/16"	PIX
				5/32"	PIR
1/2"	COF	1/2"	BET	3/16"	PIX
				1/4"	PIG
9/16"	COG	9/16"	BEN	3/16"	PIX
				1/4"	PIG
5/8"	COH	5/8"	BEL	1/4"	PIG
				5/16"	PIP
11/16"	COW	11/16"	BEM	1/4"	PIG
				5/16"	PIP
3/4"	COX	3/4"	BES	5/16"	PIP
				1/4"	PIG
7/8"	COY	7/8"	BEY	5/16"	PIP
				3/8"	PIC
1"	COL	1"	BEV	5/16"	PIP
				3/8"	PIC
1-1/4"	COM	1-1/4"	BEW	3/8"	PIC
				1/2"	PID

CODE EXAMPLE:

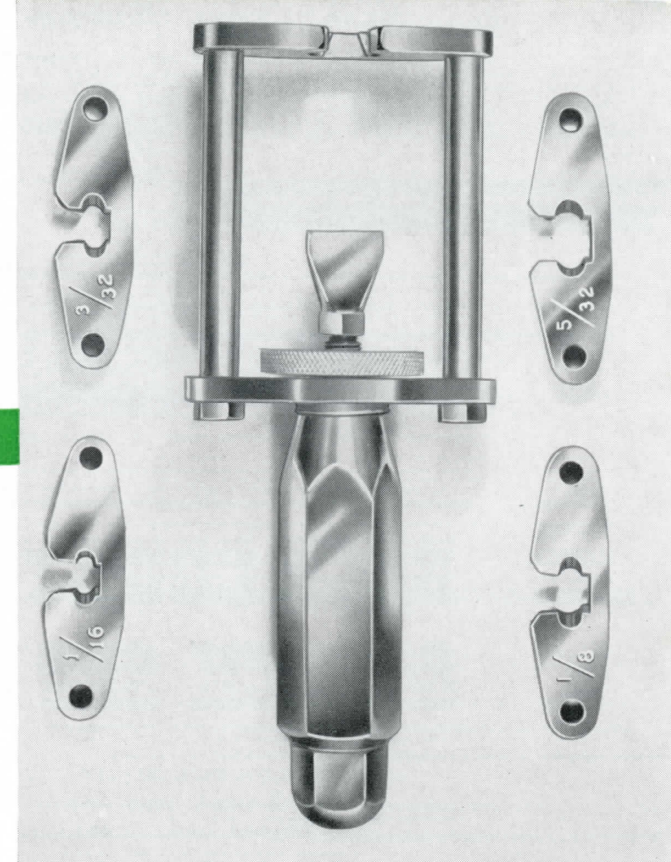
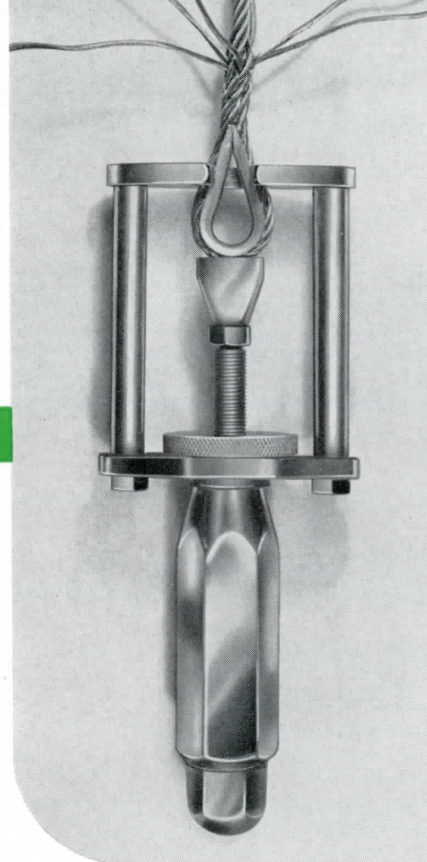
1" Back Spotfacer with 3/8" pilot: COL-PIC

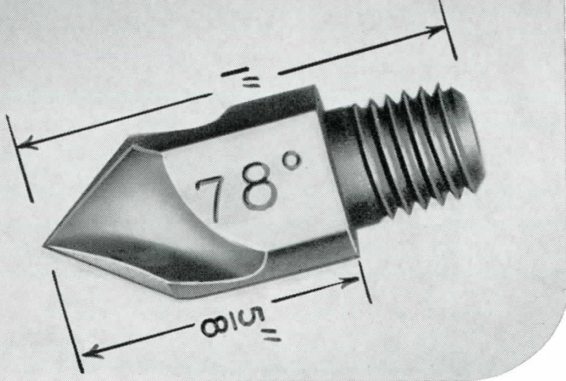


CABLE SPLICERS

Ruggedly constructed, complete with dies for accommodating 1/16, 3/32, 1/8, 5/32.

This compact unit is easily handled under all conditions, providing a positive locking grip of cable while being spliced.





Angle Drill COUNTERSINKS

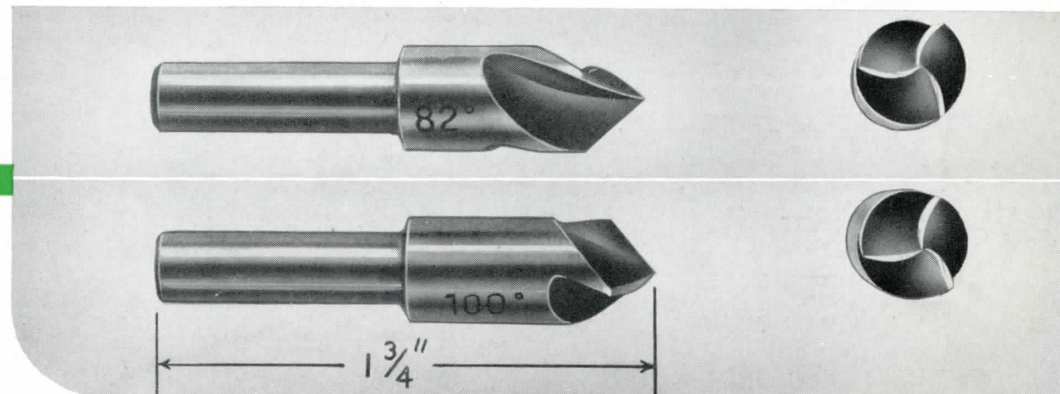
Especially designed to fit Aircraft angular drilling equipment. A smooth cutting, three-fluted Countersink. Diameter: $\frac{3}{8}$ ". Flutes are highly polished to dissipate chips. (Shown at left).

	Cutter	Code Word
Adapter Type	100°	AOX
Adapter Type	82°	AOY
Adapter Type	78°	AOS

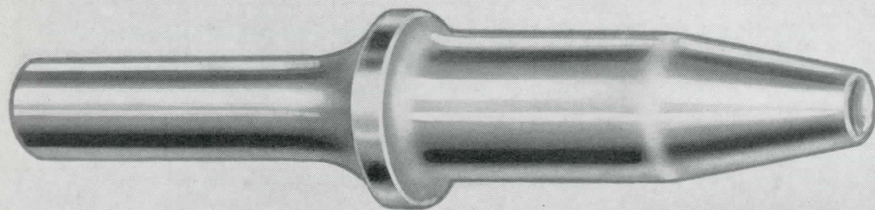
Spiral Fluted COUNTERSINKS

Diam.	Degree	Code Word
1/4"	78°	APA
1/4"	82°	APB
1/4"	100°	APC
3/8"	78°	APN
3/8"	82°	APO
3/8"	100°	APS
1/2"	78°	APL
1/2"	82°	APZ
1/2"	100°	APJ

EXAMPLE: 100° Countersink, 3/8"
Dia.—(APS)



Non-chattering countersink designed with three spiral flutes. Fabricated of high speed steel, accurately ground for correct cutting angles and clearances. Flutes are highly polished to dissipate chips. (Shown above).



RIVET SETS

TYPE A

Rivet Cups			Overall Length	
		Code		Code
3/32"	RH	RIA	3-1/2"	LEA
1/8 "	RH	RIB	5-1/2"	LEE
5/32"	RH	RIC	7-1/2"	LEG
3/16"	RH	RID	10-1/2"	LEI
1/4 "	RH	RIE	13-1/2"	LEJ
3/32"	BH	RIF		
1/8 "	BH	RIG		
5/32"	BH	RIH		
3/16"	BH	RIJ		
1/4 "	BH	RIK		
Flush Head		RIP		

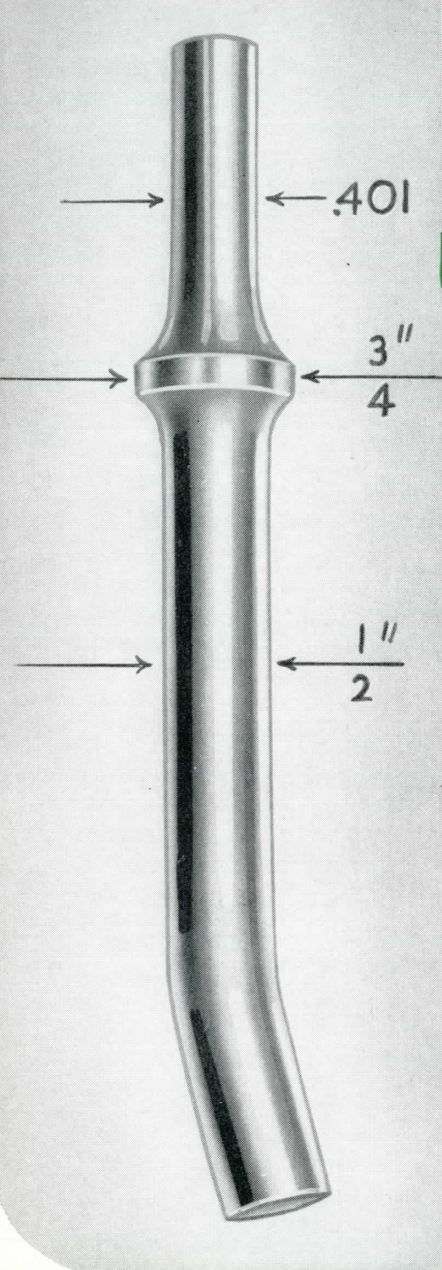
EXAMPLE: 3/32" Round Head Rivet Set 7-1/2" long—
(A-RIA-LEG)

Specify cup size and length desired.

All standard sets furnished in .401 Dia. Shank, Parker-Taper.

Aerocraft Rivet Sets have been engineered to meet the most rigid requirements. All Aerocraft Rivet Sets are forged giving a grain structure that follows the radii, thus minimizing breakage. Proper heat treatment combined with the use of Chrome Vanadium 6140 SAE Steel eliminates distortion of rivet cups and mushrooming of rivet shanks. These sets come with highly polished cup surfaces guaranteed to conform to rivet heads. Rivet Set shanks are ground to accuracies of .0005. Rivet Sets come standard with 1/2" radius on shank which is .401 dia.

OFFSET RIVET SETS



AEROCRAFT offset rivet sets are made of the same high-grade steel and workmanship as previous sets illustrated and carry the same guarantees. Radii are free of tool marks and body diameters are ground to close tolerances. The degree of bend is approximately 10° and the length of the bend is 1".

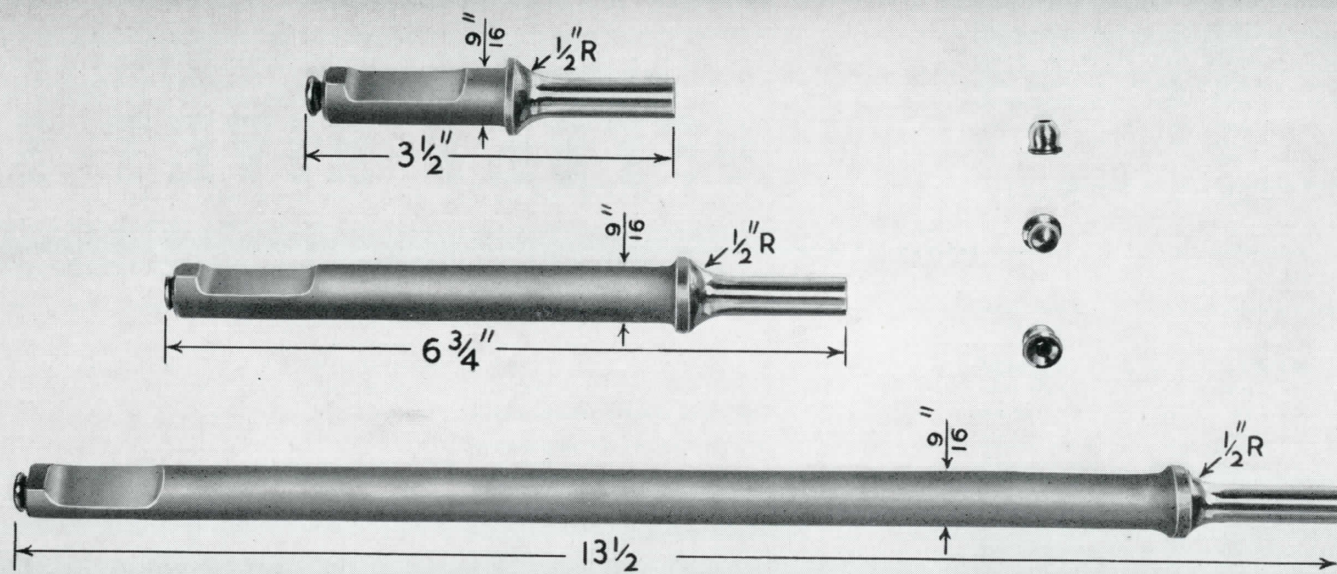
All Aerocraft sets are forged giving a grain structure that follows the radii, thus minimizing breakage.

TYPE B

Rivet Cups			Code	Overall Length	Code
3/32"	RH	RIA		3-1/2"	LEA
1/8 "	RH	RIB		5-1/2"	LEE
5/32"	RH	RIC		7-1/2"	LEG
3/16"	RH	RID		10-1/2"	LEI
1/4 "	RH	RIE			
3/32"	BH	RIF			
1/8 "	BH	RIG			
5/32"	BH	RIH			
3/16"	BH	RIJ			
1/4 "	BH	RIK			
Flush Head			RIP		

EXAMPLE: 5/32" Offset Round Head, 3-1/2" long—
(B-RIC-LEA)

Specify Cup Size and Length Desired



SWIVEL DIMPLING TOOLS

A swivel die dimples the skin to receive a 100° flush rivet . . . speeds up fabrication. The swivel ball die speeds operation by always being square with skin.

Takes .401 shank with Parker-taper 1/2" radius.

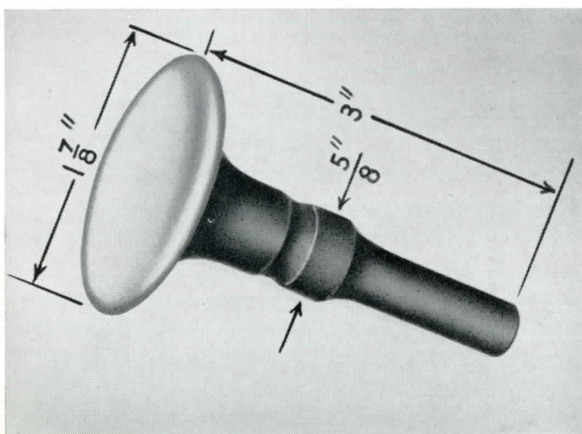
These sets are supplied in the following rivet sizes: 3/32, 1/8, 5/32; and the following lengths: 3 1/2", 6 3/4", 13 1/2".

	Diam.	DAY	DEE	DOT
DO	3/32"	3-1/2"	6-3/4"	13-1/2"
DOE	1/8"	3-1/2"	6-3/4"	13-1/2"
DOLL	5/32"	3-1/2"	6-3/4"	13-1/2"

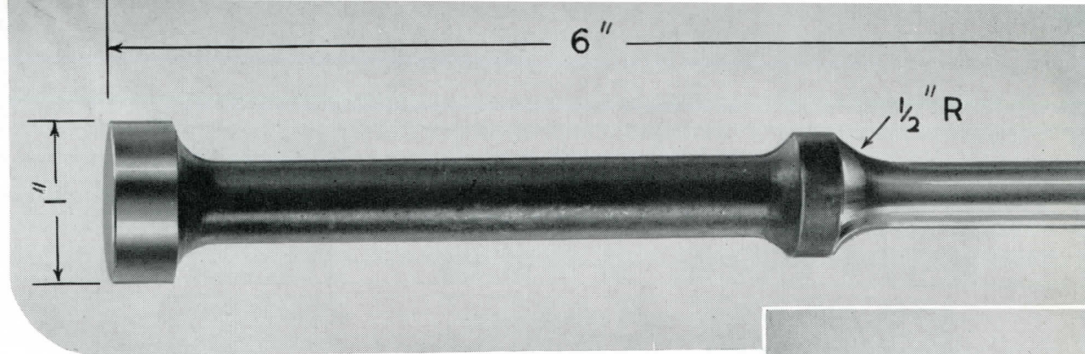
Order by code: Example — 3/32 x 6 3/4" —
DO - DEE.

FLUSH RIVET SETS

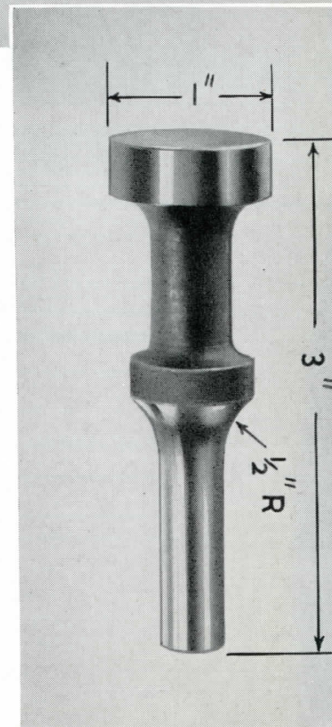
Overall Length 3" Code LIT



Engineered and built for maximum service life under the most adverse production conditions. All Aircraft rivet sets are forged giving a grain structure that follows radii. Thus minimizing breakage. Aircraft flush rivet sets are made of high quality chrome vanadium steel heat-treated and ground. Large radii are used in critical points to prevent breakage. The face of the flush rivet sets is slightly crowned and polished to a mirror finish. All sets have .401 dia. Parker-Taper shanks.



Overall Length 6" Code LEF



Overall Length $3\frac{1}{2}$ " Code LEB

SWIVEL TYPE FLUSH SETS

This set consists of a flush cup and swivel shank, held in place by rubbers so that the flush cup is always square to the rivet. The cup is slightly crowned, with a diameter of approximately $1\frac{1}{4}$ ".

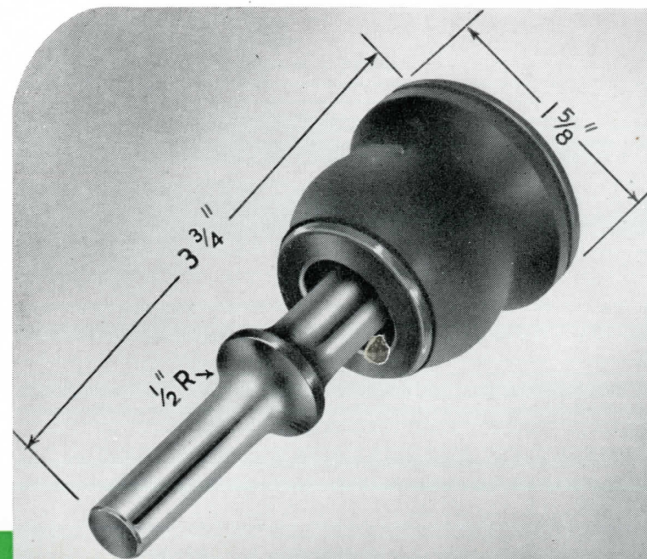
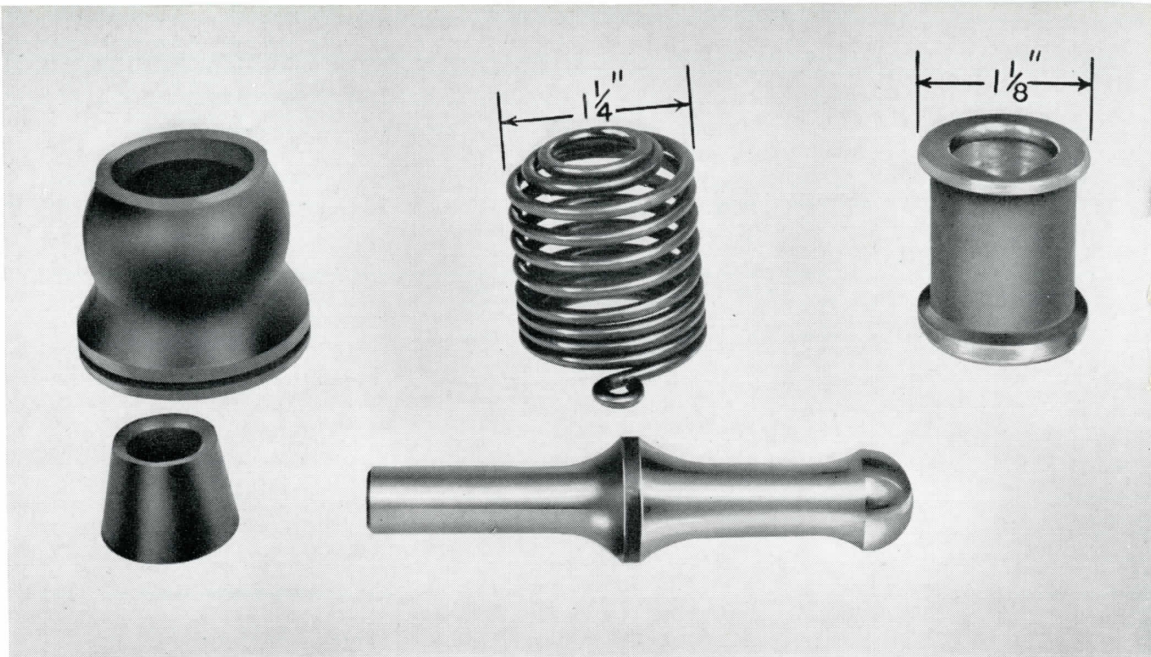
The protective rubber covering over the cup also exerts a suction. The shank is held into the gun by a heavy-duty spring.

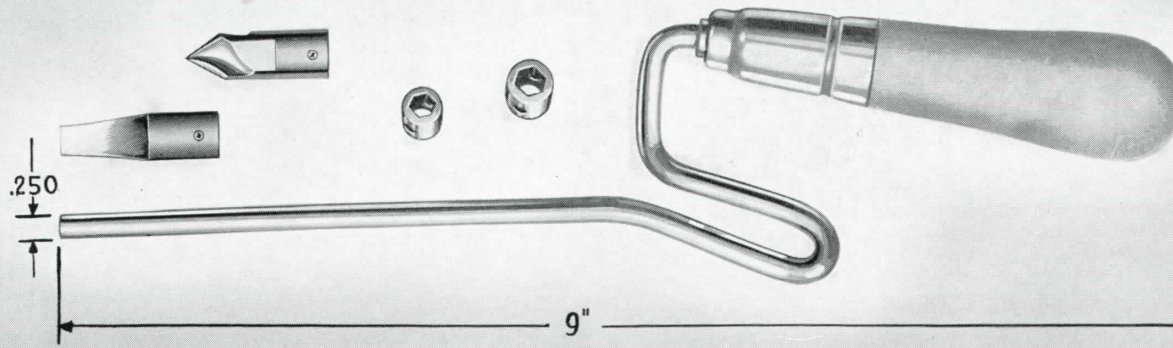
This swivel type flush set has been found most satisfactory by aircraft builders and is standard equipment in principal plants.

Shanks are available in two diameters.

SWIVEL TYPE FLUSH SET

Diameter	Code Word
.401	NEG
.497	NED



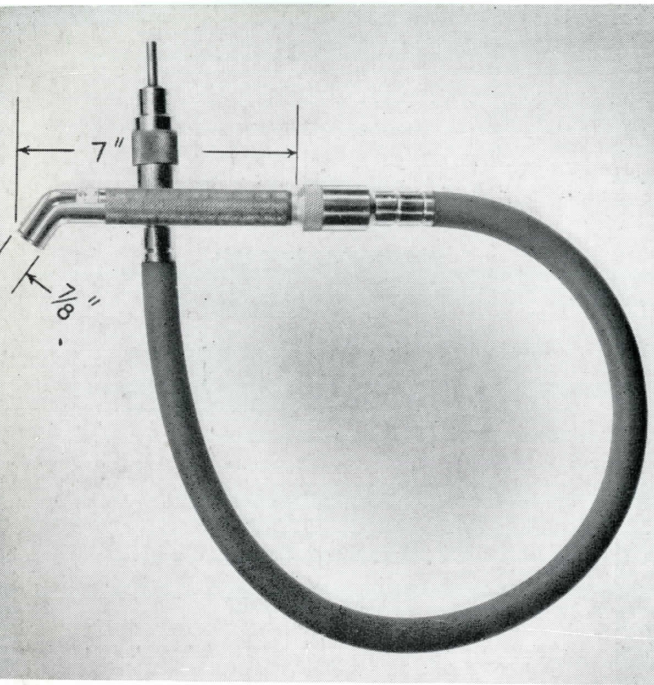


SPEED WRENCHES

Socket Wrenches
Burring Tool
Screw Driver

Description	Code Word
Speed wrench	SPW
5/16" socket tip	SUN
3/8" socket tip	SON
Screwdriver tip	SCR
Burring tool tip	SUR

Designed for rapid handling of screws and bolts, also available with tip for burring drilled holes. These speed wrenches have proven of great assistance in speeding aircraft production. Full swiveling handles, rugged shanks and positive fitting tips feature their construction.



FLEXIBLE SHAFT ANGLE DRILLS

45° and 90°

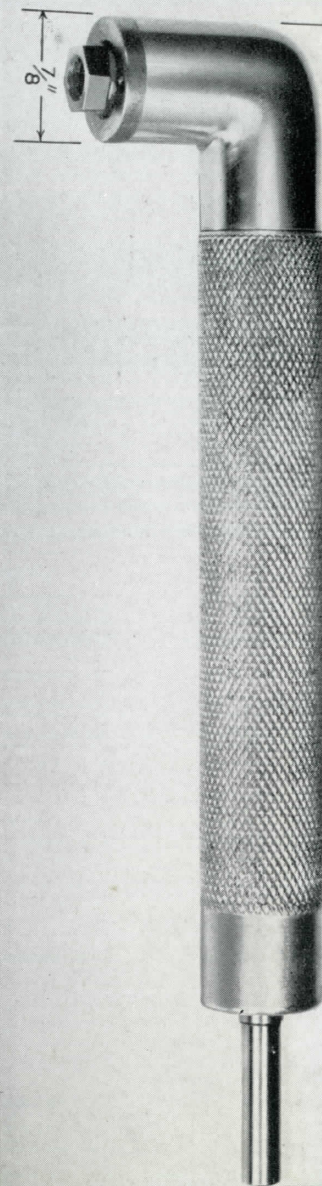
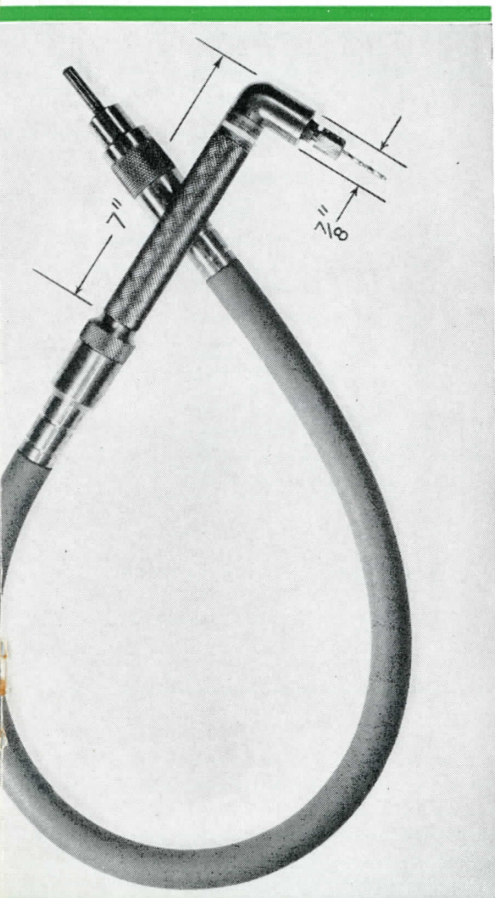
Aerocraft heavy-duty 45° and 90° angle drills are of full ball-bearing type with a flexible shaft 30" in length, constructed of a high-grade, steel core with a rubber covered casing. The drill head is equipped with 1/4—28 threaded spindle. When used with Aerocraft drill adapters illustrated on page #23, for holding small drills, these angle drills serve a wide range of functions in manufacturing and plant operation. Utilizing the finest workmanship throughout, these tools may be depended upon to give long service under exacting production conditions.

Degree	Description	Code Word
45°	Complete Drill	SEA
45°	Head Only	SEB
90°	Complete Drill	SOA
90°	Head Only	SOB

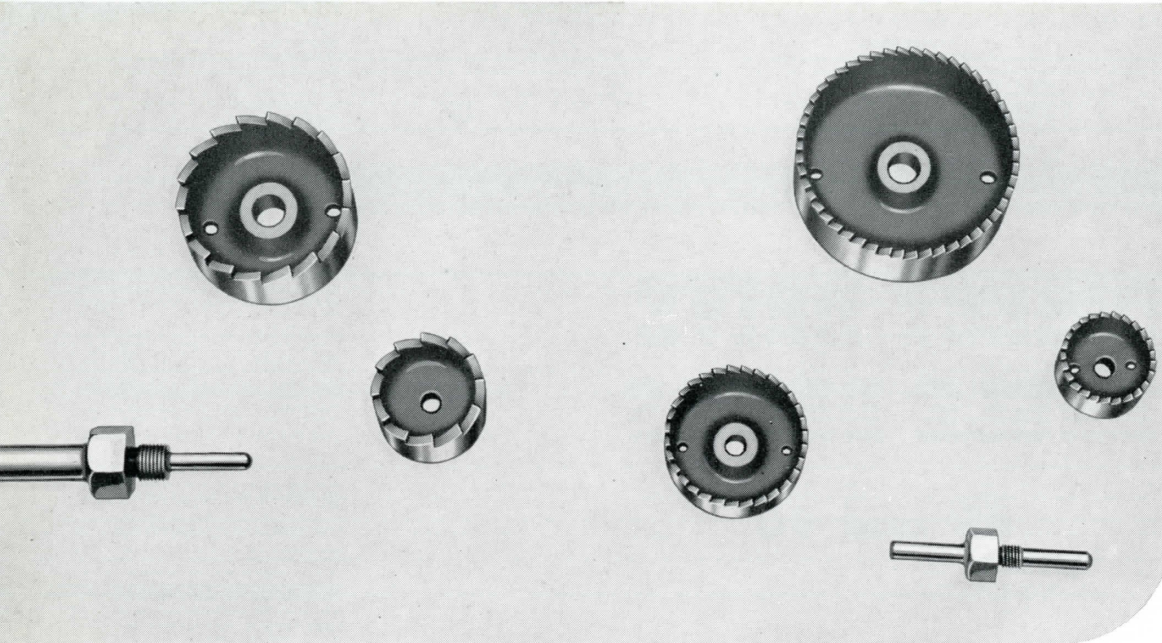
DIRECT DRIVE ANGLE DRILLS

45° and 90°

Smooth, cool-running angle drills with pre-loaded ball-bearings heads. These rugged tools are designed to run at high speeds and are free from vibration. Equipped with 1/4 — 28 threaded spindle.



Drill	Code Word
90°	ANA
45°	ANY



HOLE SAWS

These cutters are made from solid, high-speed steel and are guaranteed to be the finest hole saws available. Both inside and outside diameters are ground with $1/2^\circ$ clearance to insure free cutting through thin skins and corrugations. Wall thickness is sufficiently great to dissipate heat, insuring long life.

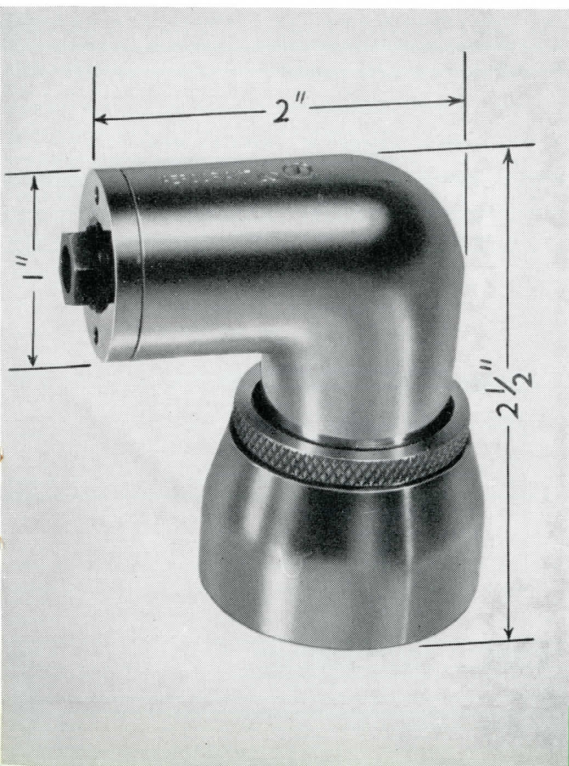
The arbor is case hardened steel. Saws $1/2''$ to $2''$ use $\#1$ pilot, $5/16''$ —24 drive thread, with $1/4''$ shank. The $2''$ to $4''$ saws use $\#2$ pilot, $1/2''$ —20 threads and a $3/8''$ shank. Pilots are $1/4''$ in diameter. The standard saws are designed for dural and stainless steel.

Diam.	Code	Diam.	Code	Diam.	Code
$1/2''$	HOA	$1-3/16''$	HOP	$2-1/8''$	HAT
$9/16''$	HOB	$1-1/4''$	HOM	$2-1/4''$	HOT
$5/8''$	HOC	$1-5/16''$	HOR	$2-3/8''$	HEX
$11/16''$	HOD	$1-3/8''$	HOL	$2-1/2''$	HIM
$3/4''$	HOE	$1-7/16''$	HOV	$2-3/4''$	HIN
$13/16''$	HOF	$1-1/2''$	HOW	$3''$	HIO
$7/8''$	HOJ	$1-5/8''$	HOK	$3-1/4''$	HIP
$1''$	HOH	$1-3/4''$	HOU	$3-1/2''$	HIQ
$1-1/16''$	HOI	$1-7/8''$	HOZ	$3-3/4''$	HIR
$1-1/8''$	HOG	$2''$	HOQ	$4''$	HIS



ANGLE ATTACHMENTS

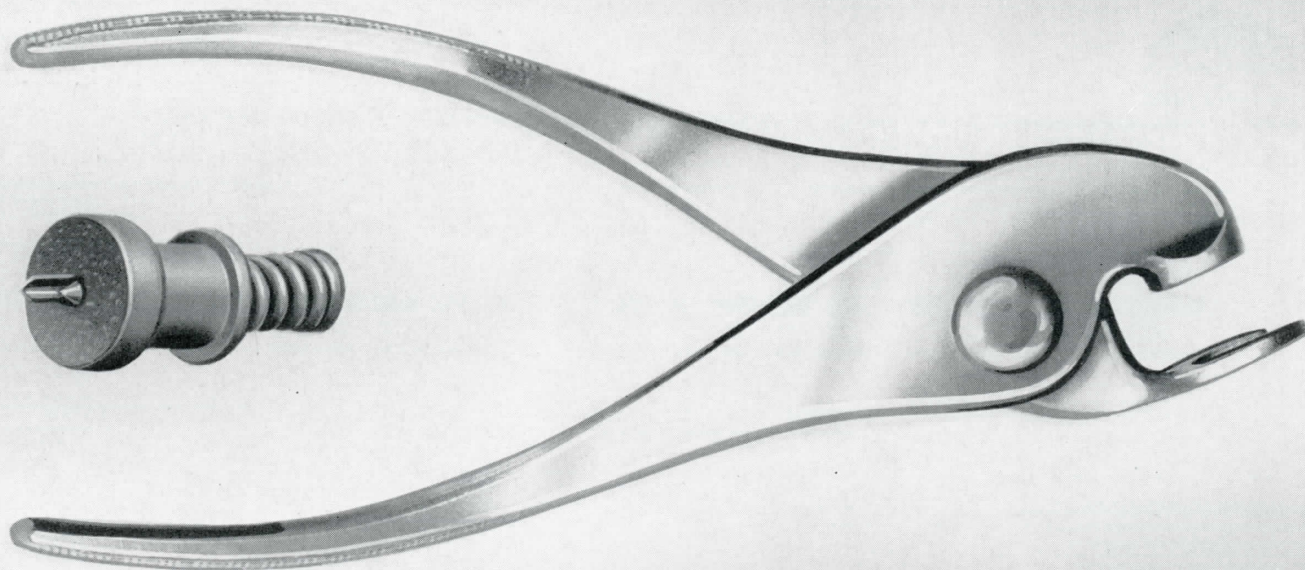
45° and 90°



These sturdy tools are gear-driven and ball-bearing throughout. The head rotates in a complete circle and is locked in any desired position by a knurled lock ring. Equipped with 1/4 — 28 threaded nose spindle. These units can be furnished to fit either Thor "U-13" or Black & Decker "Holgun". Specify type when ordering.



SHEET HOLDER PLIERS



For use with Cleco and similar type sheet holders. Designed so barrel holds end of sheet holder firmly to prevent it jumping out

under spring load — an important safety factor. Made of forged steel.

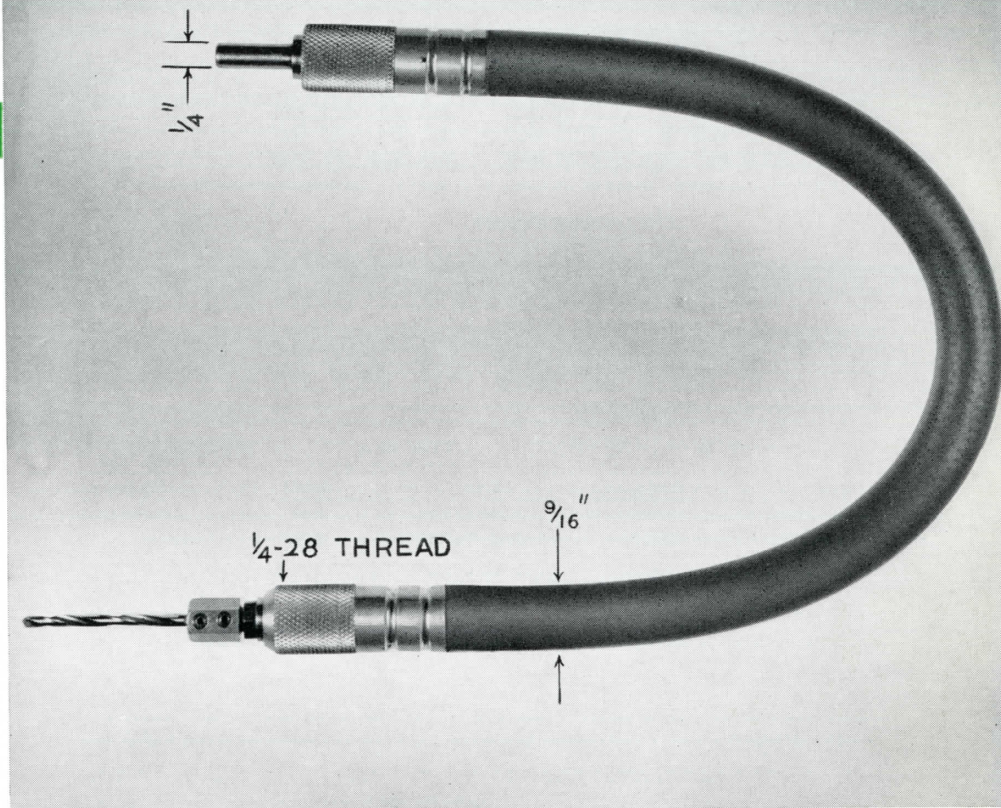
Overall length — 6". Code word — TED.



15" FLEXIBLE DRILL

A low-cost, light-duty drill for general utility angular drilling of all types, up to 3/16" drill capacity. Has plain bronze bearings. Equipped with 1/4—28 threaded nose spindle. This is a popular tool for a wide variety of shop and plant drilling operations.

Nose spindle fits adapters shown on page 23.



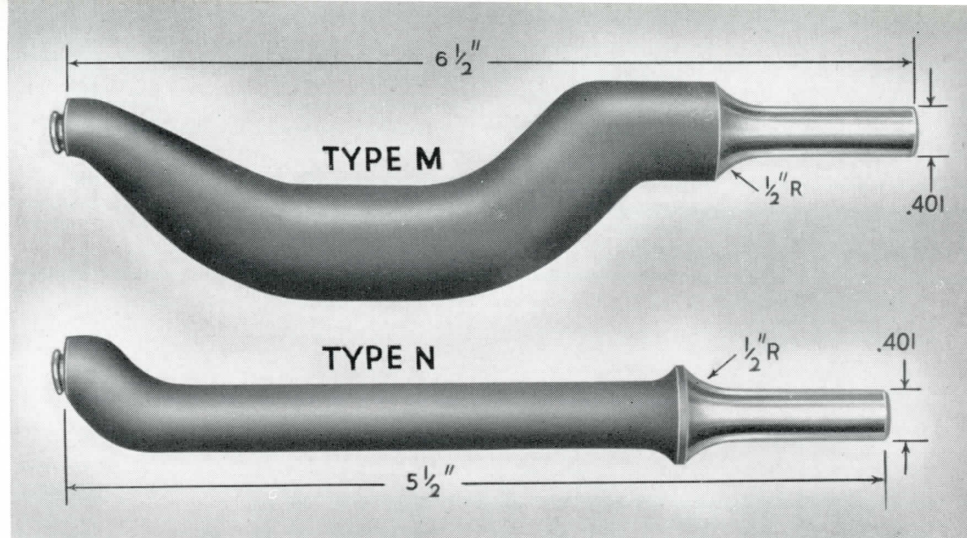
Gooseneck DIMPLING SETS

(Shown at right)

A pair of gooseneck dimpling sets designed to speed fabrication in those hard-to-get-at places. These sets are made from forged blanks and come in three sizes—3/32, 1/8 and 5/32. They are dimpled to take a 100° flush rivet. Sizes are shown in chart below.

TYPE M		TYPE N	
Size	Code	Size	Code
3/32"x100°	DIM	3/32"x100°	EAT
1/8 "x100°	DIX	1/8 "x100°	EAR
5/32"x100°	DOL	5/32"x100°	END

*CODE EXAMPLE: Type (M) 1/8" x 100° (DIX)



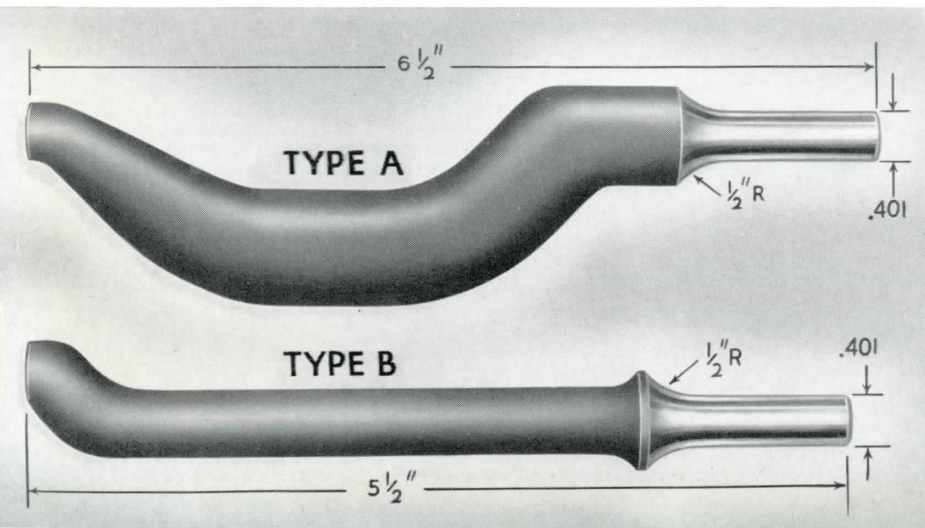
Gooseneck RIVET SETS

(Shown at left)

A pair of gooseneck rivet sets designed to speed fabrication in those hard-to-reach places. These sets are made from forged blanks and come in seven rivet head sizes listed in chart below.

TYPE A		TYPE B	
Size	Code	Size	Code
3/32" RH	FAR	3/32" RH	TIN
1/8 " RH	FEE	1/8 " RH	TOT
5/32" RH	FIT	5/32" RH	TEA
3/32" BH	FIN	3/32" BH	TIL
1/8 " BH	FUL	1/8 " BH	TOE
5/32" BH	FIL	5/32" BH	TIC
FLUSH H	FAY	FLUSH H	TOP

*CODE EXAMPLE: Type (B) 5/32" Round Head (TEA)

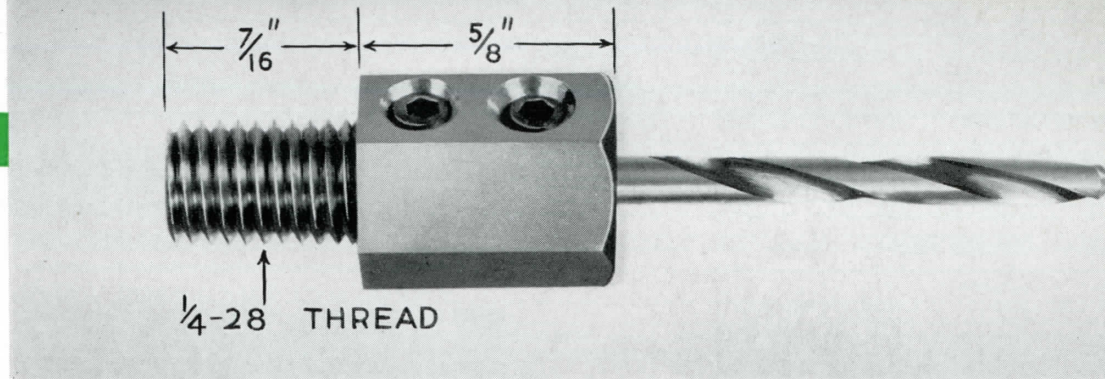
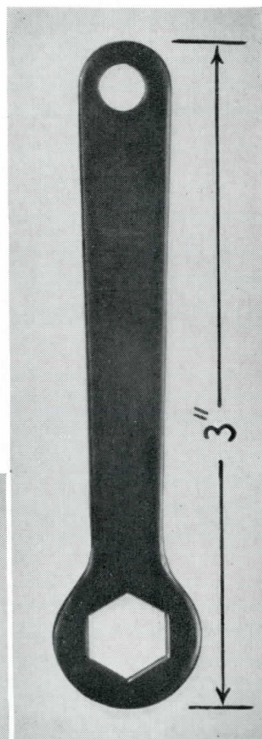
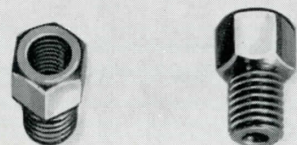




DRILL ADAPTERS

HEXAGONAL WRENCH for Drill Adapters

Size	Code Word
5/16"	MAD
3/8 "	MAN



ALLEN SCREW TYPE

In this new Aircraft Drill Adapter the drill is held in place by two Allen Screws, so that short, broken drills can be used in the shop. The adapter is reamed for accurate concentricity. Supplied with 1/4—28 threaded shank.

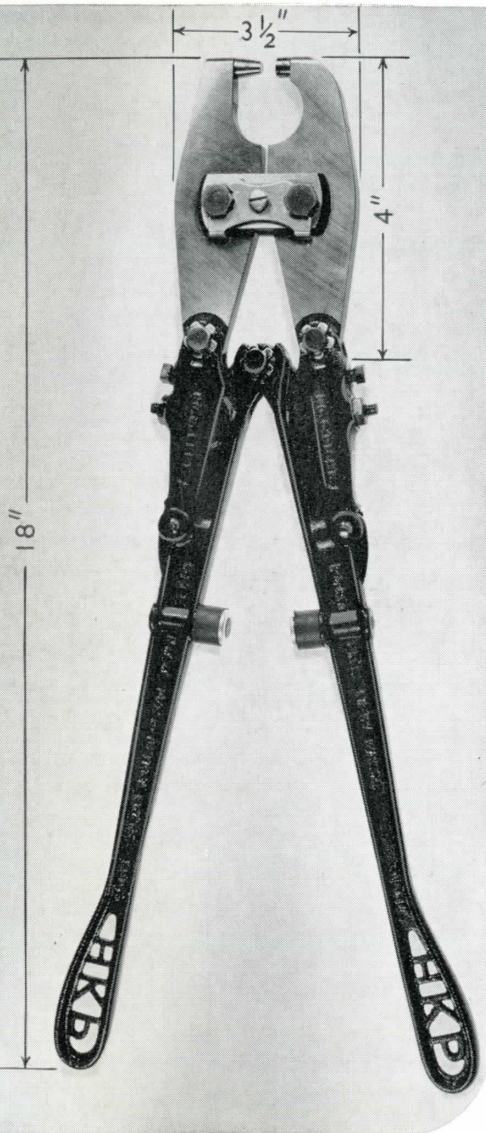
Be sure to specify drill size required

THREADED TYPE

Aircraft Drill Adapters are designed to fit all Aircraft angular drilling equipment. Built of high grade steel. Supplied with 1/4—28 threaded shank. Internal hole threaded in 4 sizes.

Inside Thread	Code Word
3-48	ADA
5-40	ADB
6-32	ADC
10-32	ADE

*Cleveland Twist Drill
Company supplies
threaded HS drills to
fit adapters*



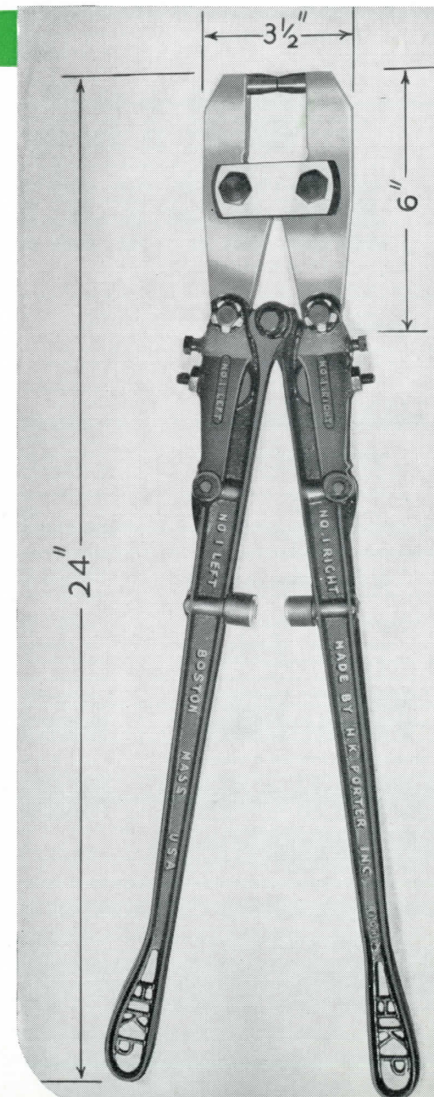
HAND RIVET SQUEEZERS

Available in two sizes, No. 0 with 3/32" and 1/8" rivet capacity. No. 1 with 5/32" and 3/16" rivet capacity. Designed to fit aircraft requirements these squeezers are of rugged construction with line reamed jaws. Made of high grade tool steel properly heat-treated and ground.

Handles are H. K. Porter product of proven merit.

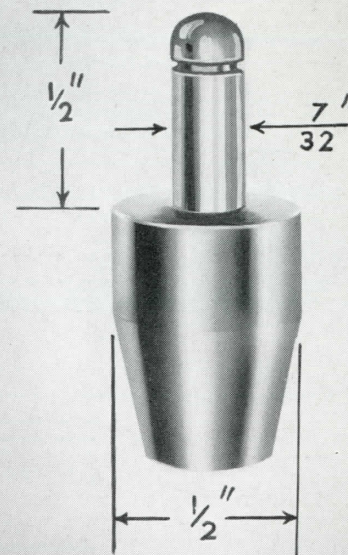
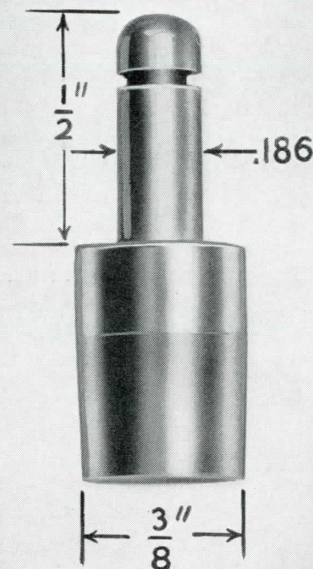
Illustration left: #0 size —
4" jaws 3/32" and 1/8"
capacity.

Illustration right: #1 size —
6" jaws 5/32" and
3/16" capacity.



HAND RIVET SQUEEZER SETS

Aerocraft Hand Rivet Squeezer Sets have been engineered to meet the most rigid requirements. Proper heat treatment combined with the use of Chrome Vanadium 6140 SAE Steel eliminates distortion of rivet cups and mushrooming of rivet shanks. These sets come with highly polished cup surfaces guaranteed to conform to rivet heads. Squeezer Set shanks are ground to accuracies of .0005.

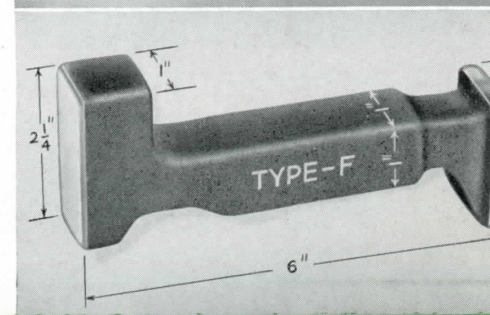
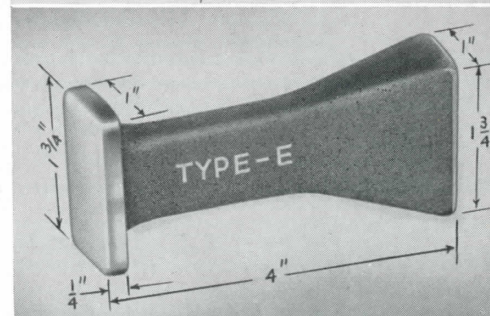
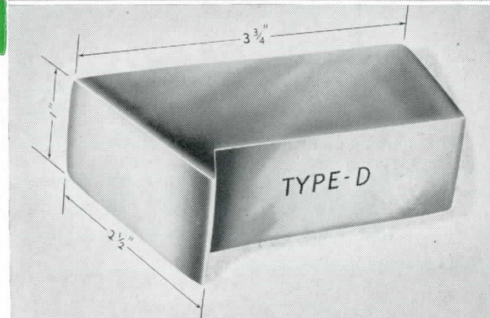
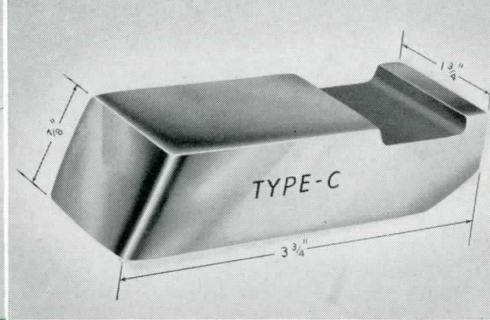
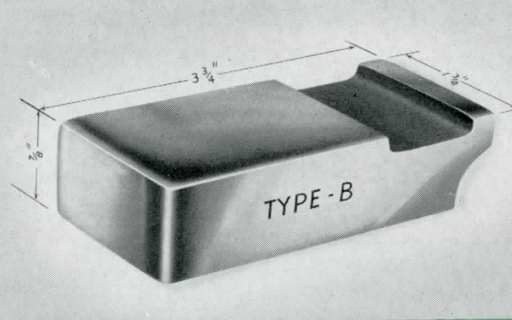
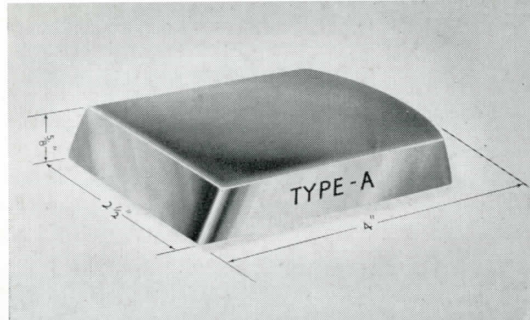


Sets for #0 Squeezer

Rivet Size	Code
3/32" Round Head	ARA
1/8" Round Head	ARE
3/32" Brazier Head	ARC
1/8" Brazier Head	ARO
Flush Head	ART

Sets for #1 Squeezer

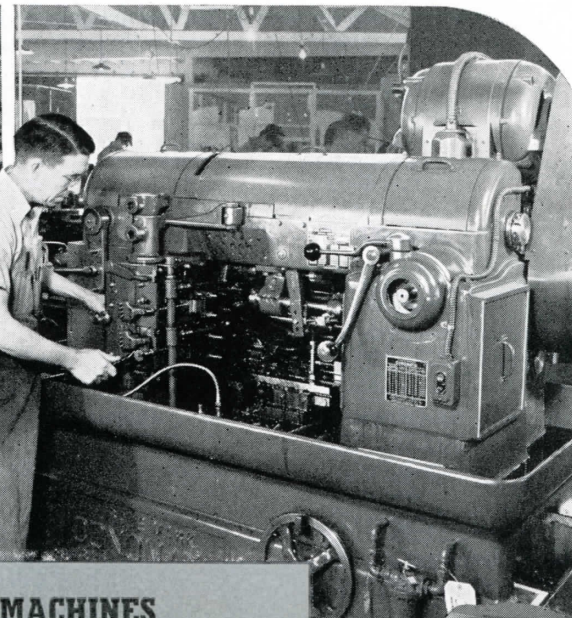
Rivet Size	Code
5/32" Round Head	OAT
3/16" Round Head	OWE
5/32" Brazier Head	ONE
3/16" Brazier Head	OLD
Flush Head	ODE



BUCKING BARS

Aerocraft bucking bars are well known for their ability to stand up under constant production use. These bars are case hardened and highly polished on all working surfaces. The 6 types illustrated are of the most common tools and are carried in stock.

TYPE	CODE WORD
A	ZAB
B	ZOL
C	ZOT
D	ZOC
E	ZOR
F	ZUP

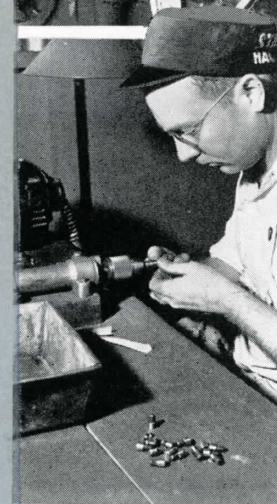


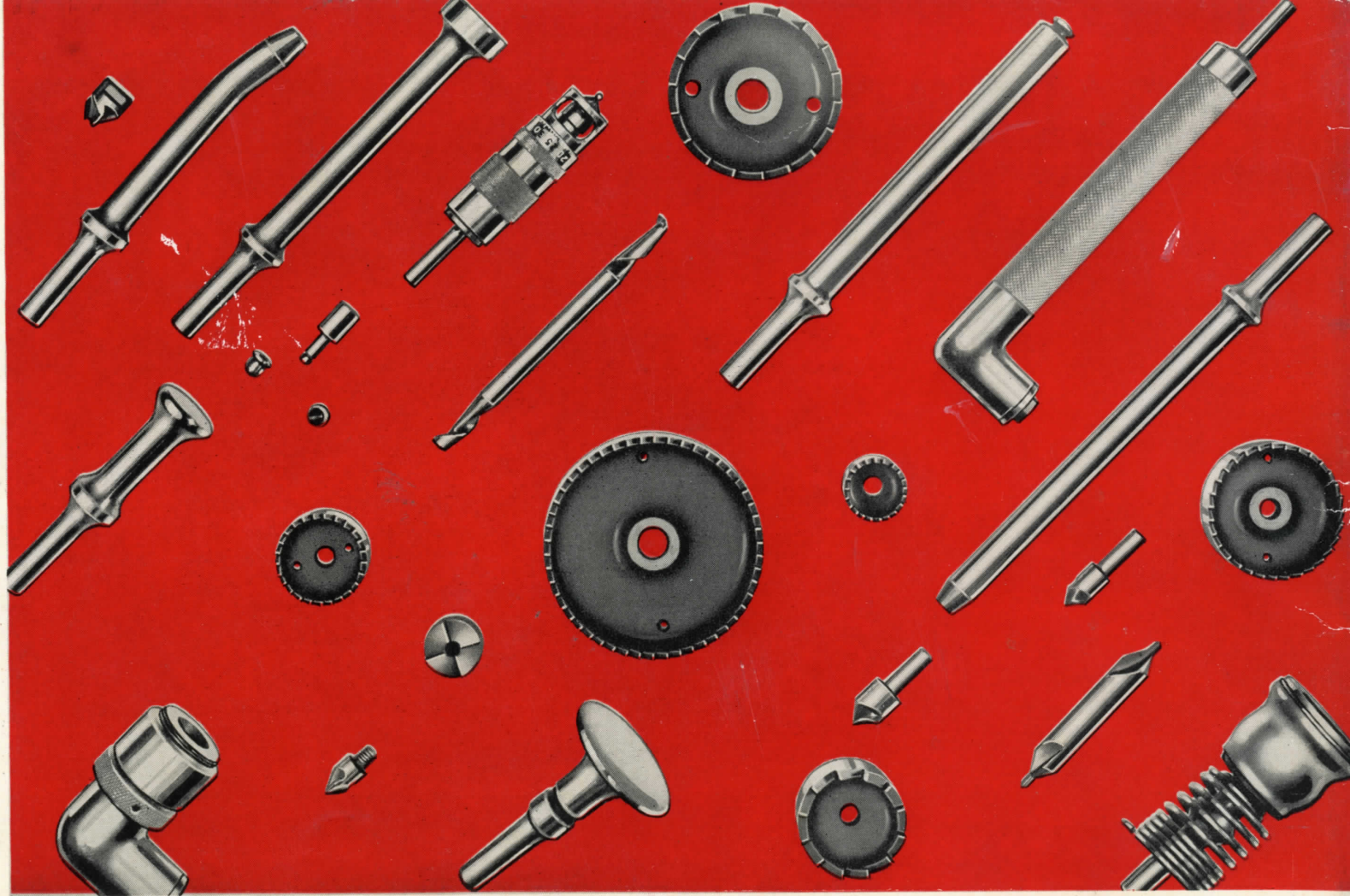
SKILL AND PRECISION MACHINES MADE AEROCRAFT TOOLS

From a modest beginning three years ago, Aircraft Tools, Inc. has progressed with the aviation industry to become the largest supplier of production hand tools. This growth is based on the two outstanding requirements of fabrication tools—accuracy and long life. These qualities, for which Aircraft Tools are world famous, cannot be obtained with ordinary men and machines. The latest type precision machinery has been installed and the finest type of machinists employed. These factors, combined with the sincere desire of Aircraft Tools, Inc. to produce only a quality product is responsible for the success of this complete line of dependable small tools.

Aircraft fabrication is constantly undergoing important changes. Always in close touch with the changes in manufacturing procedure, our engineering staff has adapted and standardized the small tools to provide more profitable fabrication for the aircraft manufacturer. For a dependable source of tools so essential to precision manufacturing, the aircraft industry will continue to look to

AIRCRAFT TOOLS, INC.





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750 E. GAGE AVENUE, LOS ANGELES, CALIFORNIA

Accurate, Dependable, Small Tools